

ORIGINAL ARTICLE

Genital Hygiene Practices Among Postmenopausal Women: A Descriptive Study

Postmenopozal Kadınlarda Genital Hijyen Uygulamaları: Tanımlayıcı Bir Çalışma

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ABSTRACT

Aim: This study aimed to determine the genital hygiene practices of postmenopausal women.

Methods: This descriptive study was conducted with 250 postmenopausal women who visited a district state hospital in Kastamonu between January and April 2023. Data were collected using the Demographic Information and the Genital Hygiene Practices forms.

Results: The mean age of the participants was 63.46±9.67 years. Of the participants, 81.2% had not received any information about genital hygiene, although 68.8% considered their knowledge of genital hygiene sufficient. Additionally, 61.6% of them used only water for external genital cleansing, and 74.8% did not use deodorizing products for the external genital area. Also, 54.4% of the participants performed vaginal lavage after sexual intercourse, while 61.6% practiced vaginal lavage as part of their genital hygiene routine. Furthermore, 83.6% wore cotton underwear, 87.2% preferred loose and comfortable underwear, and 54.8% changed their underwear once or several times per week. Incorrect perineal cleaning practices were reported by 59.2% of the participants, and 64% did not wash their hands before using the toilet. The rate of seeking medical consultation in cases of foul-smelling vaginal discharge and/or itching was 72%. Logistic regression analysis revealed that perceiving one's knowledge as sufficient influenced the choice of cleansing products for the external genital area, the practice of vaginal lavage, the type of underwear worn, and the frequency of underwear changes ($p < 0.05$).

Conclusions: This study indicated that the majority of participants had not received information about genital hygiene. Approximately two-thirds considered their knowledge sufficient; however, incorrect practices were widely documented among them. Although the participants perceiving their knowledge as sufficient was a factor in performing some genital hygiene practices correctly, they still practiced some incorrect behaviors. It is crucial that nurses inform postmenopausal women about correct genital hygiene practices.

Keywords: Genital, hygiene, women, post-menopause.

Öz

Amaç: Bu araştırma postmenopozal kadınlarda genital hijyen uygulamalarını belirlemek amacıyla yürütülmüştür. **Gereç ve Yöntemler:** Tanımlayıcı türdeki bu araştırma, Kastamonu'da bir ilçe devlet hastanesine Ocak-Nisan 2023 tarihleri arasında başvuran, postmenopozal dönemde olan 250 kadın ile yürütülmüştür. Verilerin toplanmasında "Tanıtıcı Bilgi Formu" ve "Genital Hijyen Uygulamaları Formu" kullanılmıştır.

Bulgular: Katılımcıların yaş ortalaması 63,46±9,67'dir. Katılımcıların %81,2'sinin genital hijyen hakkında bilgi almadığı, %68,8'inin genital hijyen bilgisini yeterli bulduğu belirlenmiştir. Katılımcıların %61,6'sının dış genital bölge temizliğinde sadece su kullandığı, %74,8'inin dış genital bölge için koku giderici ürün kullanmadığı saptanmıştır. Katılımcıların %54,4'ünün cinsel ilişkiden sonra vajinal lavaj yaptığı, %61,6'sının genital hijyen için vajinal lavaj uygulaması yaptığı bulunmuştur. Katılımcıların %83,6'sının pamuklu, %87,2'sinin bol-rahat iç çamaşırını kullandığı, %54,8'inin iç çamaşırını haftada bir/birkaç kez değiştirdiği belirlenmiştir. Katılımcıların %59,2'sinin doğru taharetlenme uygulaması yapmadığı, %64'ünün tuvalete girmeden önce ellerini yıkamadığı saptanmıştır. Genital bölgede kötü kokulu akıntı ve/veya kaşıntı olduğunda hekime başvurma oranı ise %72 olarak bulunmuştur. Lojistik regresyon analizine göre genital hijyen bilgisini yeterli görenin dış genital bölge temizliğinde kullanılan ürün, vajinal lavaj yapma durumu, kullanılan iç çamaşır tarzı ve iç çamaşırın değiştirme sıklığını etkilediği saptanmıştır ($p < 0,05$).

Sonuçlar: Katılımcıların çoğunun genital hijyen konusunda bilgi almadığı görülmüştür. Katılımcıların yaklaşık üçte ikisinin bilgilerini yeterli görmesine rağmen hatalı uygulamaların yaygın olduğu belirlenmiştir. Katılımcıların bilgilerini yeterli görme durumları bazı genital hijyen uygulamalarını doğru yapmalarında belirleyici olmasına rağmen bazı uygulamaları halen hatalı yaptıkları saptanmıştır. Hemşirelerin postmenopozal dönemdeki kadınları doğru genital hijyen uygulamaları hakkında bilgilendirmelerinin önemli olduğu düşünülmektedir.

Anahtar Kelimeler: Genital, hijyen, kadın, postmenopoz.

INTRODUCTION

Post-menopause is defined as the period following the final menstruation, regardless of whether menopause was induced or occurred spontaneously (1). One of the most common issues among postmenopausal women is vulvovaginal atrophy. Due to vulvovaginal atrophy, postmenopausal women frequently experience vaginal dryness, dyspareunia, burning or irritation, itching, vaginal discharge, urinary incontinence, frequent urination, and recurrent urinary tract or vaginal infections (2-5).

Proper genital hygiene practices are essential for maintaining vulvar health and preventing genital infections (6). A review of the literature on genital hygiene practices among women reveals that most studies focus on adolescents and women of reproductive age (7-12). However, a limited number of studies have examined genital hygiene practices among postmenopausal women (13-15). In a study conducted by Zhu et al., wiping from back to front after toilet use was associated with an increased risk of recurrent urinary tract infections in postmenopausal women (13). A pilot study by Daniel et al. found that more than half of postmenopausal women used intravaginal applications (14). Another study on postmenopausal women reported that 7.9% had engaged in vaginal lavage within the past three months. Additionally, more than half of the women had used an over-the-counter product for vulvovaginal symptoms during this period, and approximately one-third had used two or more over-the-counter products (15).

This study aimed to examine genital hygiene practices among postmenopausal women within the Turkish social and cultural context. The results of this research

are expected to contribute to nursing practices in the management of genital health among postmenopausal women, a period characterized by urogenital atrophy due to estrogen deficiency and associated symptoms.

MATERIALS and METHODS

Study Design and Setting

This is a descriptive study.

Study Population and Sample

The study population consisted of women who visited a district state hospital in Kastamonu. At the time of the study, the hospital provided services in internal medicine, family medicine, emergency care, dentistry, and pediatrics. The study was conducted with women who sought medical care at the outpatient clinics of internal medicine, family medicine, emergency services, and dentistry.

A convenience sampling method was employed, whereby participants were selected based on their availability and accessibility during the data collection period. The study sample was determined using an online tool, the Raosoft Sample Size Calculator (<http://www.raosoft.com/samplesize.html>). A total of 12,131 women visited the institution between January 1, 2022, and June 30, 2022. According to the 2021 data from the Turkish Statistical Institute (TÜİK), approximately one-fourth of the female population in Türkiye is over the age of 49 years, which is the average age of menopause (16). Based on this prevalence (25%), and assuming a 5% margin of error, a 93% confidence level, and a response distribution of 50%, the minimum required sample size was calculated to be 242

participants. To account for potential non-responses or data loss, 250 women were ultimately included in the study.

Inclusion and Exclusion Criteria

The inclusion criteria for the study were as follows: being literate, having not menstruated in the past year, and agreeing to participate in the study.

The exclusion criterion was as follows: being dependent on another person for performing genital hygiene practices.

Data Collection

The research data were collected face-to-face between January and April 2023. Two instruments were used for data collection.

Data Collection Tools

Demographic Information Form: This form consists of questions assessing participants' sociodemographic characteristics (e.g., age, education level, income level).

Genital Hygiene Practices Form: Developed based on the literature (14, 17-24), this form evaluates participants' knowledge and practices related to genital hygiene, including information sources, perceived adequacy of knowledge, products used, vaginal cleansing behaviors, and perineal hygiene practices. The form was reviewed by eight experts in Obstetric and Gynecologic Nursing and Midwifery, and its final version was shaped according to expert opinions.

Data Analysis

The collected data were analyzed using the Statistical Package for the Social Sciences (SPSS) version 27.0. Descriptive statistics were used in the analyses. Logistic

regression analysis was performed to evaluate the impact of perceived adequacy of genital hygiene knowledge on genital hygiene practices. A p-value of < 0.05 was considered statistically significant.

Ethical Considerations

Ethical approval was obtained from a university ethics committee (Approval No: 20/191, Date: 19/12/2022), and written permission was obtained from the institution where the study was conducted. Participants were informed about the study, and their written informed consent was obtained before participation.

RESULTS

The sociodemographic characteristics of the participants are presented in Table 1. The mean age of the participants was 63.46 ± 9.67 years. Of them, 32.4% ($n=81$) were literate, 54.4% ($n=136$) were primary school graduates, 4% ($n=10$) had completed middle school, 5.2% ($n=13$) were high school graduates, and 4% ($n=10$) had a university degree or higher education level. In addition, the majority (73.6%, $n=184$) were married, and 92.8% ($n=232$) were not engaged in an income-generating job. Regarding income status, 47.6% ($n=119$) of the women described their income level as low, 43.6% ($n=109$) as moderate, and 8.8% ($n=22$) as high. Additionally, 88% ($n=220$) of the women had health insurance, and 46% ($n=115$) reported that the place they lived the longest was a village or small town (Table 1).

Table 1. Sociodemographic characteristics of the participants (n=250)

	\bar{X}	SD
Age	63.46	9.67
	N	%
Level of Education		
Literate	81	32.4
Primary School	136	54.4
Middle School	10	4.0
High School	13	5.2
University and above	10	4.0
Marital Status		
Single	66	26.4
Married	184	73.6
Being employed in an income-generating job		
Yes	18	7.2
No	232	92.8
Income Status		
Low	119	47.6
Moderate	109	43.6
High	22	8.8
Health Insurance		
Yes	220	88.0
No	30	12.0
Longest Inhabited Place		
City	20	8.0
County	115	46.0
Village/town	115	46.0

This study determined that 81.2% (n=203) of the women had never received information about genital hygiene, 10% (n=25) had obtained information from healthcare professionals, and 8.8% (n=22) had received information from friends, family, television, or the internet. Additionally, 68.8% (n=172) considered their knowledge of genital hygiene to be sufficient. Regarding hygiene practices, 70% (n=175) of the women reported that

they did not use sanitary pads or liners in daily life, 61.6% (n=154) used only water for external genital cleansing, and 98.8% (n=247) did not use talcum powder. It was also found that 86.4% (n=216) of the women frequently removed pubic hair, 76% (n=190) dried the external genital area with toilet paper after washing, and 74.8% (n=187) did not use deodorizing products for the external genital region. Furthermore, 54.4% (n=136) of the women performed vaginal lavage after sexual intercourse, and 61.6% (n=154) engaged in vaginal lavage as part of their genital hygiene routine. Among those who practiced vaginal lavage, 83.1% (n=128) used only water. In terms of general hygiene habits, 56.8% (n=142) of the women reported taking a bath or shower 2–3 times per week. Additionally, 83.6% (n=209) wore cotton underwear, 87.2% (n=218) preferred loose and comfortable undergarments, 54.8% (n=137) changed their underwear once or several times per week, and 63.2% (n=158) washed their underwear at high temperatures in a washing machine. However, 59.2% (n=148) of the women did not follow proper perineal cleaning techniques. Moreover, 64% (n=160) of the women reported that they did not wash their hands before using the toilet. Lastly, 72% (n=180) of the participants stated that they sought medical consultation in the presence of foul-smelling vaginal discharge and/or itching (Table 2).

Table 2: Genital hygiene practices of the participants (n=250)

	n	%
Having received information on genital hygiene		
No	203	81.2
Yes, received from health workers	25	10.0
Yes, received from friends/family/television/internet	22	8.8
Perceiving genital hygiene knowledge as sufficient		
Inadequate	78	31.2
Adequate	172	68.8
Diaper/pad use in daily life		
None	175	70.0
Daily pad	14	5.6
Cloth	41	16.4
Incontinence pad	12	4.8
Cotton	8	3.2
Products used for cleaning the external genital area		
Water	154	61.6
Water + soap + scrub + shower gel	96	38.4
Use of powder for external genital hygiene		
Yes	3	1.2
No	247	98.8
Frequent removal of pubic hair		
Yes	216	86.4
No	34	13.6
Drying after washing the external genitalia		
No	2	.8
Yes, drying with toilet paper	190	76.0
Yes, drying with a piece of cloth	58	23.2
Use of deodorizing products for the external genital area		
No	187	74.8
Yes, using deodorant, perfume, cologne, scented toilet paper, etc.	63	25.2
Using vaginal lavage after sexual intercourse		
Yes	136	54.4
No	77	30.8
Not sexually active	37	14.8
Using vaginal lavage for genital hygiene		
No	96	38.4

Yes	154	61.6
Product used in vaginal lavage (n=154)*		
Water	128	83.1
Water, soap/other cleaners	26	16.9
Bath/shower frequency		
Less than once a week	14	5.6
Once a week	61	24.4
2–3 times per week	142	56.8
4 or more per week	33	13.2
Fabric of underwear used		
Cotton	209	83.6
Synthetic	41	16.4
Underwear style		
Tight, enveloping	32	12.8
Loose, comfortable	218	87.2
Frequency of changing underwear		
Once a day/more than once a day	113	45.2
Once/several times a week	137	54.8
Type of underwear washing		
Using washing machine at high temperature	158	63.2
Using washing machine at low temperature	89	35.6
Hand wash	3	1.2
Type of perineal cleaning		
From front to back	102	40.8
Other (randomly, from back to front, none)	148	59.2
Washing hands before using the toilet		
No	160	64.0
Yes	90	36.0
Consulting a physician in case of foul-smelling discharge and/or itching in the genital area		
Referring to a physician	180	72.0
Other practices (waiting for spontaneous healing, self-medication, vaginal lavage)	70	28.0

*Calculated based on women who performed vaginal lavage.

According to the logistic regression analysis, perceiving one's genital hygiene knowledge as sufficient increased the use of products other than water for external genital cleansing by 1.87 times, increased

Table 3: Logistic regression analysis of genital hygiene practices according to perceived adequacy and inadequacy of genital hygiene knowledge

Dependent variable	Independent variable	B (OR)	SD	Odds Ratio	95% Confidence Interval		Nagelkerke R Square	p
					Min	Max		
Products used for cleaning the external genital area	Perceiving genital hygiene knowledge as adequate (adequate=1)	.624	.278	1.867	1.083	3.220	0.027	.025*
Use of deodorizing products for the external genital area	Perceiving genital hygiene knowledge as adequate (adequate=1)	.131	.311	1.140	.620	2.097	0.001	.673
Having vaginal lavage	Perceiving genital hygiene knowledge as adequate (adequate=1)	.741	.298	2.099	1.170	3.764	0.035	.013*
Fabric of underwear used	Perceiving genital hygiene knowledge as adequate (adequate=1)	.417	.354	1.517	.758	3.038	0.009	.239
Underwear style	Perceiving genital hygiene knowledge as adequate (adequate=1)	-1.071	.385	.343	.161	.729	0.056	.005*
Frequency of changing underwear	Perceiving genital hygiene knowledge as adequate (adequate=1)	-1.376	.291	.253	.143	.447	0.122	.000**
Type of perineal cleaning	Perceiving genital hygiene knowledge as adequate (adequate=1)	-.472	.276	.624	.363	1.072	0.016	.087
Washing hands before using the toilet	Perceiving genital hygiene knowledge as adequate (adequate=1)	-.006	.284	.994	.569	1.735	0.000	.982
Consulting a physician in case of foul-smelling discharge and/or itching in the genital area	Perceiving genital hygiene knowledge as adequate (adequate=1)	.015	.304	1.015	.560	1.840	0.000	.961

* p<.05

the likelihood of performing vaginal lavage by 2.1 times, decreased the likelihood of wearing loose, comfortable underwear (compared to tight, form-fitting underwear) by 0.34 times, and decreased the frequency of changing underwear once per day or more (compared to changing it once or a few times per week) by 0.25 times (Table 3).

DISCUSSION

The results of this study, which evaluated the genital hygiene practices of women during postmenopausal period, will provide

significant contributions to healthcare

This study found that 81.2% of the women had not received any information regarding genital hygiene, and only 10% had obtained information from a healthcare professional. Similarly, Toraman et al. found that 92.7% of women (mean age: 31.82±8.7 years) had not received information on genital hygiene (25). Another study conducted with adolescent female students reported that only 55.2% had received genital hygiene education, and among those, merely 8.8% had obtained this education from healthcare professionals (26).

Sinan et al. reported the rate of obtaining information on genital hygiene as 59.6% (27). Additionally, in their study with women aged 18 years and older, Ergün et al. (2020) found that 67.9% of women had received information on genital hygiene, and among them, 37.9% had acquired this information from healthcare professionals (28). Another study conducted with women aged 15–49 years reported that 74% of participants had knowledge of genital hygiene (29). In line with the literature, the results of the present study indicate that the level of obtaining information on genital hygiene and receiving this information from healthcare professionals remains low.

In this study, although the use of cleansing and cosmetic products for the genital area was relatively low, some women were still found to prefer these products. It was determined that 38.4% of the women used soap, shower gel, or a washcloth in addition to water for genital hygiene. Furthermore, 1.2% of them reported using powder, while 25.2% used deodorizing products for the genital area. In contrast, Crann et al. conducted a study with women aged 18 years and older and found that nearly 95% of participants used at least one product for vaginal/genital hygiene.

Another study conducted with adolescent female students found that 48.6% of the participants used cosmetic products for the genital area (26). In their study conducted with women aged 15–49 years, Uzun et al. found that 85% used products other than water for genital cleansing (29). Additionally, another study reported that 13% of women used deodorants on the genital area (27). Although the present study was conducted with postmenopausal women, the results were discussed in comparison with studies

conducted on different age groups. The lower prevalence of product use observed in this study compared to aforementioned studies is likely due to the fact that participants were in the postmenopausal period and may have had limited access to hygiene products.

In this study, only 40.8% of the women performed proper perineal cleaning (from front to back). In their study conducted with women of a mean age of 29.6 years, Ergün et al. reported the rate of front-to-back perineal cleaning as 59.7% (28). Similarly, in a study conducted by Sinan et al. with women of a mean age of 39 years, 85.6% of the participants practiced front-to-back perineal cleaning (27). Additionally, a study by Kartal et al. on midwifery students reported a front-to-back perineal cleaning rate of 84% (31). Compared to the existing literature, the rate of proper perineal cleaning observed in our study is notably lower. This result highlights the importance of providing education on proper genital hygiene practices to postmenopausal women.

Furthermore, this study determined that 76% of the women used toilet paper to dry the external genital area after washing. Similarly, in a study conducted by Ergün et al. with women aged 18 years and older, the rate of using toilet paper after perineal cleaning was 77.6% (28). Considering the importance of drying the genital area after washing in terms of hygiene, this rate is not at the desired level.

In the present study, 54.4% of the women reported performing vaginal lavage after sexual intercourse, 61.6% performed vaginal lavage for genital hygiene purposes, and 83.1% of those who practiced vaginal

lavage used only water for this procedure. In a study conducted by Ergün et al. (with participants aged 18 years and older), 86.9% of the participants reported performing vaginal lavage, and 45.1% used only water for this purpose (28). The rate of vaginal lavage was 57.5% in a study by Sinan et al. (27), 52% in a study by Uzun et al. (29), 43.9% in a study by Toraman et al. (25), and 48.8% in a study by Akça and Türk (32).

The results of the present study align with those in the literature, showing that the rate of vaginal lavage is relatively high. The postmenopausal period is characterized by a reduction in estrogen levels, which leads to a shift in vaginal pH from acidic to alkaline, making the vagina more vulnerable to microorganisms (6). Moreover, the use of vaginal lavage has been associated with vaginal dysbiosis, bacterial vaginosis, and pelvic inflammatory disease (33). Given the negative health effects of vaginal lavage and the general lack of knowledge on this topic among women, it is recommended that vaginal lavage be prioritized in genital hygiene education programs.

In this study, 56.8% of the women reported taking a bath or shower 2–3 times per week. Similarly, in the study by Ergün et al., 61.6% of women reported bathing 3–4 times per week (28). In the study by Sinan et al., 63% of participants reported bathing 2–3 times per week (27). In the study by Akça and Türk, 67.7% of women reported bathing every 2–3 days (32).

In this study, 83.6% of the women reported wearing cotton underwear, 87.2% preferred loose-comfortable underwear, 54.8% changed their underwear once or several times a week, and 63.2% washed their underwear in high heat using a washing

machine. Kartal et al. reported that 85.1% of women preferred cotton underwear (31). Similarly, Sinan et al. found that 95.2% of participants preferred comfortable underwear (27). In a study by Ergün et al., 50.4% of participants preferred cotton underwear (28). Shah et al. found that the majority of adolescents aged 15–19 wore cotton underwear (74.4%), and only 61.8% changed their underwear daily (34). For maintaining vulvar health, it is recommended to use well-washed and rinsed, non-tight, cotton underwear and to change it every day (6). Based on the results of our study, there is a clear need for genital hygiene education focusing on underwear usage.

One of the inexpensive, simple, and effective methods for maintaining individual and public health and preventing diseases is hand washing (35). In this study, 64% of women reported not washing their hands before using the toilet. In a study conducted by Kartal et al. with midwifery students, only 23.4% of students reported always washing their hands before using the toilet (31). In the study conducted by Shah et al., 58.3% of adolescents aged 15–19 years reported washing their hands both before and after using the toilet (34). These results highlight the importance of nurses conducting widespread hand hygiene education for women in the postmenopausal period.

In this study, 72% of the women reported seeking medical attention when they experienced foul-smelling discharge and/or itching in the genital area. In the study by Beşen and Oskay, 20.8% of women sought medical consultation for foul-smelling discharge, and 55.7% of women sought medical consultation for vulvar itching (36). In the study conducted by Türkmen and

Karagüzel with young women aged 18–28 years, 43.8% of women with foul-smelling discharge visited a healthcare facility (37). In a study by Sharma et al., 57.1% of women with reproductive system infection symptoms (such as foul-smelling vaginal discharge, vulvar itching, burning during urination, etc.) sought treatment for their issues (38). In Kinkor et al.'s study, 47.1% of women who experienced reproductive system infection symptoms (vaginal discharge and itching) in the past two weeks sought treatment for these symptoms (39). When compared to those in the literature, the majority of the women in the present study reported seeking medical attention for their complaints, but about one-third did not seek help.

This study found that perceiving one's genital hygiene knowledge as adequate influenced the products used for external genital cleaning, their practices of vaginal lavage, the style of underwear worn, and the frequency of underwear changes. The study revealed that 81.2% of the women did not receive information about genital hygiene, and only 10% received such information from healthcare professionals. Despite these results, 68.8% of the women reported perceiving their knowledge of genital hygiene as sufficient. While the perception of adequate knowledge was a determining factor for correctly performing some genital hygiene practices, some practices were still performed incorrectly. These results suggest that it is necessary to assess the quality of women's knowledge regarding genital hygiene.

CONCLUSION

The majority of the participants did not

receive information regarding genital hygiene. Although approximately two-thirds of them considered their knowledge to be sufficient, incorrect practices were still widespread. Although the participants' perception of their knowledge as sufficient was a determinant in performing some genital hygiene practices correctly, some practices were still performed incorrectly.

It is considered important for nurses to educate postmenopausal women about proper genital hygiene practices. Assessing the content of women's knowledge on genital hygiene and correcting the misconceptions, as well as filling in the gaps in their knowledge, could contribute to the protection and maintenance of health in the postmenopausal period.

Conflict of Interest

There is no competing of interest, real and perceived, for all named authors.

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